



IMAGINE AutoSync

Processes like change detection, resolution merge and mosaicking require tightly aligned images so artifacts from poor image registration don't arise. IMAGINE AutoSync, part of the IMAGINE Expansion Pack for ERDAS IMAGINE, provides automatic image registration, allowing users of all skill levels to generate data free of misalignment issues.

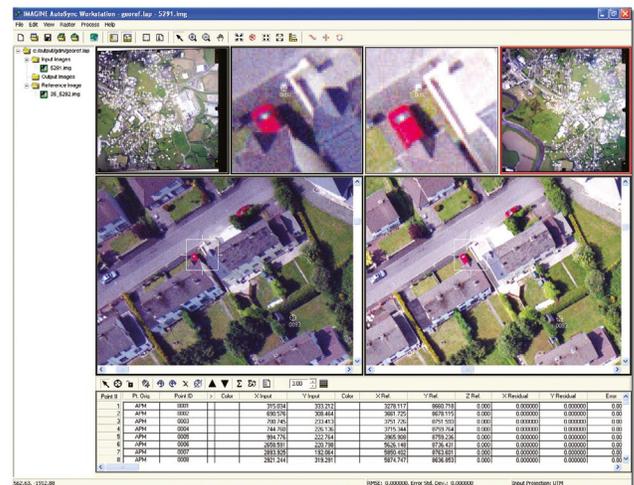
With IMAGINE AutoSync, users can generate highly accurate geometric models from two or more images of potentially dissimilar type, such as data from different sensors or with different resolutions. This method can be used to improve the registration between already georeferenced datasets. It can also be used to correlate new raw imagery to an existing georeferenced image base to quickly georeference the raw imagery. IMAGINE AutoSync generates thousands of tie points between images, enabling output images to align more closely with the initial reference image. This is ideal for applications like vintage aerial photography where camera parameters are not available.

A second workflow, edge matching, allows a localized model to be applied in the overlap region of image pairs. Using a process similar to the first, tie points are generated in the region of overlap to pull misaligned features into alignment.

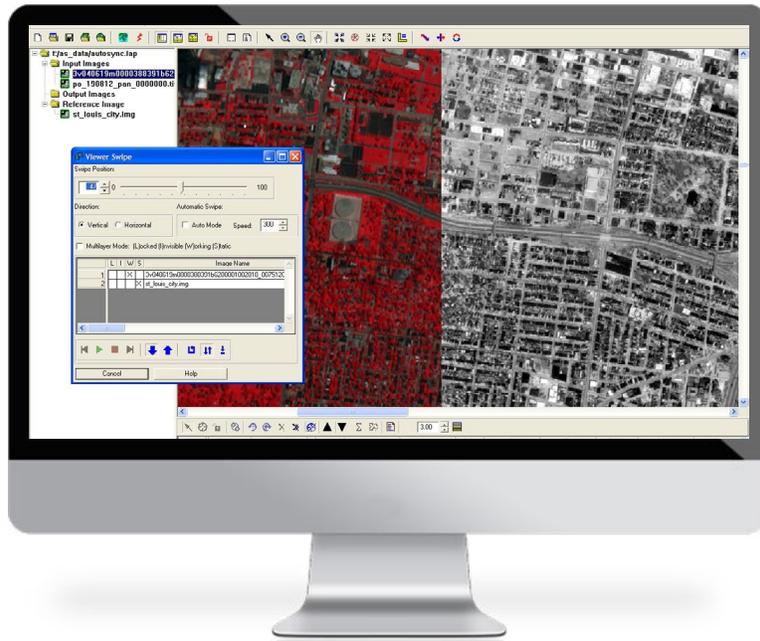
Users can choose between using an IMAGINE AutoSync wizard or IMAGINE AutoSync workstation.

IMAGINE AutoSync wizards

With an IMAGINE AutoSync wizard, users can set up the process, push start and walk away. Using this method, a job will automatically run through georeferencing and edge matching workflows. Wizard jobs can even be batched to run later.



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With the workstation, users can rapidly review the control points, view a report on the process and preview output images.

IMAGINE AutoSync workstation

The IMAGINE AutoSync workstation is where initial points are collected to establish a base relationship between referenced imagery and raw image frames that need to be georeferenced for the “raw workflow.” After collecting initial points, user can start the sync process to generate more points across the image(s). In the workstation, users can also rapidly review control points, view process reports and preview output images.

Automating georeferencing in Spatial Modeler

Spatial Modeler is a dynamic and graphical spatial data modeling environment that provides real-time feedback and previews. The modern interface includes extended analysis operators as well as support for Python scripting.

The functionalities provided by IMAGINE AutoSync – georeferencing and edge matching – are available via operators in Spatial Modeler. Operators are available for generating ground points, point matching and refining geometric models based on the matched points. Users can perform these tasks with IMAGINE AutoSync wizards, in the IMAGINE AutoSync workstation or by creating a spatial model using these operators. The spatial model can be used whenever it is needed, for example, when registering or aligning newly acquired data to existing datasets.

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